Name, Lastname, Id #: 10.01.2013

# Karadeniz Technical University

## Faculty of Engineering

Dept. of Comp. Engineering

BİL 107 Final Exam

1. Convert $\mathbf{0.5625_{10}}$ to **single precision floating point** format (**IEE754**) and represent in **hexadecimal** form.

2. Construct the truth table of a divider circuit to **divide 4 bit unsigned integers** by **2** and output **integer** part of the **quotient**. Use a **Karnaugh** map to produce the simplest **S**um **O**f **P**roducts (**SOP**) expression of the circuit. Do **<u>NOT</u>** draw the circuit of minimum **SOP** expression. Use $\mathbf{x_i}$ and $\mathbf{y_i}$ for input and output values respectively.

3. The waveforms shown below are applied on the inputs of a **gated D latch**. Determine and draw the **Q** output waveform if the latch is initially **RESET**.

